

**Response**

Page 8 of 14

Applicant(s): VOROBIA et al.

Serial No.: 09/542,708

Filed: 04 April 2000

For: LOW POWER INFRARED PORTABLE COMMUNICATION SYSTEM WITH WIRELESS RECEIVER  
AND METHODS REGARDING SAME**Remarks**

The Office Action mailed 18 July 2005 has been received and reviewed. The Office Action identifies claims 2, 4-5, 17-27, and 36-42 as "withdrawn" claims. In Applicants' Amendment and Response filed March 24, 2004, these claims (claims 2, 4-5, 17-27, and 36-42) were *canceled* by Applicants. Applicants informed the Examiner of such cancellation of claims in response to the previous Office Action. Thus, the claims 2, 4-5, 17-27, and 36-42 are *canceled*.

No claims have been amended in response to the pending Office Action. As such, the pending claims include claims 1, 3, 6-16, and 28-35. Reconsideration and withdrawal of the rejections are respectfully requested in view of the remarks provided herein.

**Attorney Docket Number**

Please note that the Attorney Docket Number has changed from 129.00100101 to **316.0010 0101**. Please refer to the new Attorney Docket Number (**316.00100101**) in all future correspondence and/or communications.

**The 35 U.S.C. §103(a) Rejection****Claims 1, 3, 6-8, and 14-16**

The Examiner continues to reject claims 1, 3, 6-8, and 14-16 under 35 U.S.C. §103(a) as being unpatentable over Sulavuori et al. (U.S. Patent No. 5,636,264) in view of Holakovszky (WO 99/34576). Applicants respectfully traverse the Examiner's rejections.

To establish a *prima facie* case of obviousness, three basic criteria must be met. First, there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine reference teachings. Second, there must be a reasonable expectation of success. Finally, the prior art references must teach or suggest all the claim limitations. See M.P.E.P. §2143.

**Response**

Page 9 of 14

Applicant(s): VOROBA et al.

Serial No.: 09/542,708

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For: **LOW POWER INFRARED PORTABLE COMMUNICATION SYSTEM WITH WIRELESS RECEIVER AND METHODS REGARDING SAME**

Applicants respectfully assert that the Office Action does not establish all of these criteria, and therefore fails to set forth a *prima facie* case of obviousness.

For example, claim 1 describes a portable communication system that includes an infrared receiver apparatus. The infrared receiver apparatus described in claim 1 includes a receiver housing enclosing a speaker and demodulation circuitry and upon which an infrared light detection device is mounted. The receiver housing is formed to be self-supported entirely by the ear of a user.

Contrary to the Examiner's allegations, Sulavuori et al. does not describe an infrared receiver apparatus that includes a receiver housing enclosing a speaker and demodulation circuitry and upon which an infrared light detection device is mounted; where the receiver housing is formed to be self-supported entirely by the ear of a user. The Examiner continues to allege that such a receiver is described in Sulavuori et al. with reference to Figure 4B and column 6, line 60-column 8, line 30. However, Sulavuori et al. does not describe a receiver housing that is self-supported entirely by the ear of a user. The only receiver described in Sulavuori et al. is part of a handset. In other words, the handset 4 that includes the infrared light detection device 206 does not include a receiver housing that is self-supported entirely by the ear of a user.

Holakovszky et al. also does not describe an infrared receiver apparatus that includes a receiver housing enclosing a speaker and demodulation circuitry and upon which an infrared light detection device is mounted; where the receiver housing is formed to be self-supported entirely by the ear of a user. Holakovszky et al. describes a headset that includes two earphones connected by a flexible frame. The earphones (i.e., the receiver/transmitter) are held in the ears by a light pressing force of the flexible frame. The headset described in Holakovszky et al. must be positioned in both ears. "When the headset is worn on the head, the cases of the earphones protrude into the deeper middle part of the *left and the right ear*, respectively, and the earphones are held in the *ears* by the light pressing force of the U-shaped flexible frame...." (See page 1 of Holakovszky et al.) (emphasis added). Holakovszky does not teach a receiver housing that is formed to be self-supported entirely by the ear of a user as described in claim 1.

**Response**

Page 10 of 14

Applicant(s): VOROBA et al.

Serial No.: 09/542,708

Filed: 04 April 2000

For: LOW POWER INFRARED PORTABLE COMMUNICATION SYSTEM WITH WIRELESS RECEIVER AND METHODS REGARDING SAME

As such, for at least the above reasons, the references cited by the Examiner do not teach or suggest all the claim limitations of claim 1, and therefore, claim 1 is not obvious in view thereof. In addition, there is no motivation or suggestion to combine the references cited.

Further, as claims 3, 6-8, and 14-16 depend on claim 1, either directly or indirectly, they include the limitations thereof. As such, these claims are also not obvious in view of the cited references for the same reasons as discussed above and by reason of their own limitations.

For example, with respect to claims 6-7, there is nothing in the cited references that teach or suggest an in the ear or behind the ear receiver that includes an infrared receiver and that is formed to be self-supported entirely by the ear of a user.

Further, for example, with respect to claim 8, there is nothing in the cited references that teach or suggest the structure according to the present invention that allows the receiver of claim 8 to be switched from one ear to the other (e.g., speaker holding element that includes an opening defined therethrough sized and configured to receive a speaker from either end of the opening).

In view of at least the above, Applicant respectfully requests that the rejection of claims 1, 3, 6-8, and 14-16 be withdrawn.

**Claims 9-13**

Claims 9-13 were rejected under 35 U.S.C. 103(a) as being unpatentable over Sulavuori et al. in view of Holakovszky, and further in view of Strohallen. Claims 9-13 depend on claim 1, either directly or indirectly. Therefore, they include the limitations of claim 1. As such, these claims are also not obvious in view of the references cited for the same reasons as discussed above and by reason of their own limitations as Strohallen does nothing to cure the deficiencies of Sulavuori et al. and Holakovszky.

As recognized by the Examiner in the rejection of claims 28-35 in the presently pending Office Action, Strohallen et al. "does not expressly teach the headset receiver is infrared light detection device." As clearly set forth in the specification of Strohallen et al. in column 28, the cordless headset 400 includes a TVM magnetic receiver 404 and a TVM transmitter 410 that may incorporate an RF, infrared, or other suitable transmitter. In other words, the cordless

**Response**

Page 11 of 14

Applicant(s): VOROBA et al.

Serial No.: 09/542,708

Filed: 04 April 2000

For: LOW POWER INFRARED PORTABLE COMMUNICATION SYSTEM WITH WIRELESS RECEIVER  
AND METHODS REGARDING SAME

---

headset 400 includes a TVM magnetic receiver and not an infrared receiver. In other words, Strohallen et al. does not describe a portable infrared receiver apparatus that includes a receiver housing enclosing a speaker and demodulation circuitry and upon which the infrared light detection device is mounted; where the receiver housing is formed to be self-supported entirely by the ear of a user.

As such, Strohallen et al. does not cure any of the deficiencies of the other references. Therefore, for at least the above reasons, Applicant respectfully requests that the rejection of claims 9-13 be withdrawn.

Claims 28-35

Claims 28-35 were rejected under 35 U.S.C. 103(a) as being unpatentable over Strohallen (U.S. Patent No. 5,568,516) in view of Holakovszky.

Claim 28 describes a portable infrared receiver apparatus that includes a receiver housing enclosing a speaker and demodulation circuitry and upon which an infrared light detection device is mounted. The receiver housing is formed to be self-supported entirely by the ear of a user.

As recognized by the Examiner, Strohallen et al. "does not expressly teach the headset receiver is infrared light detection device." In other words, Strohallen et al. does not describe a portable infrared receiver apparatus that includes a receiver housing enclosing a speaker and demodulation circuitry and upon which the infrared light detection device is mounted; where the receiver housing is formed to be self-supported entirely by the ear of a user.

However, the Examiner alleges that Holakovszky teaches a headset receiver that is an infrared light detection device. Further, the Examiner alleges that "[s]ince, Strohallen indicates headset receives infrared (column 6, lines 25-30). Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention was made to in receiving infrared signal at the headset, as taught by Strohallen, in order to retrieve the audio signal transmit in infrared and demodulate to audio for hearing by the user."

However, contrary to the Examiner's assertions, Strohallen et al. does not describe a headset that receives infrared. Column 6, lines 25-30 state that the "cordless headset" uses Time

**Response**

Page 12 of 14

Applicant(s): VOROBA et al.

Serial No.: 09/542,708

Filed: 04 April 2000

For: LOW POWER INFRARED PORTABLE COMMUNICATION SYSTEM WITH WIRELESS RECEIVER  
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Variant Modulation (TVM) for reception of a magnetic signal and TVM of RF or infrared, or other communication modes, as the transmitter offers advantages over prior art cordless headsets which use only infrared or RF for both transmission and reception." Yet further, as clearly set forth in the specification of Strohallen et al. in column 28, the cordless headset 400 includes a TVM magnetic receiver 404 and a TVM transmitter 410 that may incorporate an RF, infrared, or other suitable transmitter. In other words, the cordless headset 400 includes a TVM magnetic receiver. Never, does Strohallen et al. describe the use of an infrared receiver as part of the headset that includes a receiver housing formed to be self-supported entirely by the ear of a user. In fact, Strohallen et al. makes a point in using a TVM magnetic receiver as part of the headset and not infrared. Only an infrared *transmitter* is indicated as being a potential element of the headset. As such, contrary to the Examiner's assertions, there is no suggestion to modify Strohallen et al. to receive audio signal transmitted in infrared to a receiver housing enclosing a speaker and demodulation circuitry and upon which the infrared light detection device is mounted; where the receiver housing is formed to be self-supported entirely by the ear of a user.

Further, Holakovszky et al. does nothing to cure the deficiencies of Strohallen et al. Holakovszky et al. does not describe an infrared receiver apparatus that includes a receiver housing enclosing a speaker and demodulation circuitry and upon which an infrared light detection device is mounted; where the receiver housing is formed to be self-supported entirely by the ear of a user. Holakovszky et al. describes a headset that includes two earphones connected by a flexible frame. The earphones (i.e., the receiver/transmitter) are held in the ears by a light pressing force of the flexible frame. The headset described in Holakovszky et al. must be positioned in both ears. "When the headset is worn on the head, the cases of the earphones protrude into the deeper middle part of the *left and the right ear*, respectively, and the earphones are held in the *ears* by the light pressing force of the U-shaped flexible frame...." (See page 1 of Holakovszky et al.) (emphasis added). Holakovszky does not teach a receiver housing that is formed to be self-supported entirely by the ear of a user as described in claim 28.

For these reasons alone (e.g., not all the claim limitations are taught or suggested), claim 28 is not obvious in view of the cited references.

**Response**

Page 13 of 14

Applicant(s): VOROBA et al.

Serial No.: 09/542,708

Filed: 04 April 2000

For: LOW POWER INFRARED PORTABLE COMMUNICATION SYSTEM WITH WIRELESS RECEIVER  
AND METHODS REGARDING SAME

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Further, as claims 29-35 depend on claim 28, either directly or indirectly, they include the limitations thereof. As such, these claims are also not obvious in view of the cited references for the same reasons as discussed above and by reason of their own limitations.

For example, with respect to claim 29, there is nothing in Strohallen et al. that shows an elongated portion of a receiver housing upon which an infrared light detection device is positioned. Strohallen et al. shows an ear supported device in Figure 21, but it does not include the elements of claim 29. Holakovszky et al. does nothing to cure this deficiency of Strohallen et al.

Further, for example, with respect to claims 30-31, there is nothing in Strohallen et al. that describes the structure according to the present invention that allows the receiver of claims 30-31 to be switched from one ear to the other (e.g., speaker holding element that includes an opening defined threethrough sized and configured to receive a speaker from either end of the opening). Holakovszky et al. does nothing to cure this deficiency of Strohallen et al.

In view of the above, Applicant respectfully requests that the rejection of claims 28-35 be withdrawn.

**Response**

Page 14 of 14

Applicant(s): VOROBA et al.

Serial No.: 09/542,708

Filed: 04 April 2000

For: LOW POWER INFRARED PORTABLE COMMUNICATION SYSTEM WITH WIRELESS RECEIVER  
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It is respectfully submitted that the pending claims are in condition for allowance and notification to that effect is respectfully requested. The Examiner is invited to contact Applicants' Representatives, at the below-listed telephone number, if it is believed that prosecution of this application may be assisted thereby.

Respectfully submitted

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**CERTIFICATE UNDER 37 C.F.R. 1.8:**

The undersigned hereby certifies that this paper is being transmitted by facsimile in accordance with 37 CFR §1.6(d) to the Patent and Trademark Office, addressed to Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450, on this 16<sup>th</sup> day of December, 2005, at 10:10 am (Central Time).

Signature: Sara E. WiganPrinted Name: Sara E. Wigan